

MEASLES HA INSERT FOR THE HN-L JUNCTION

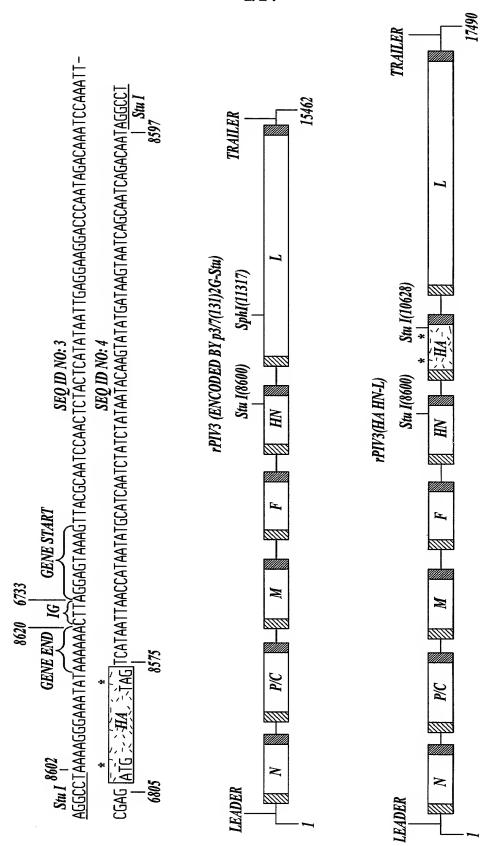


Fig. 1B

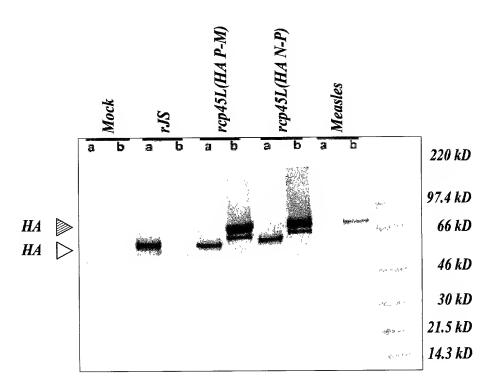


Fig. 2

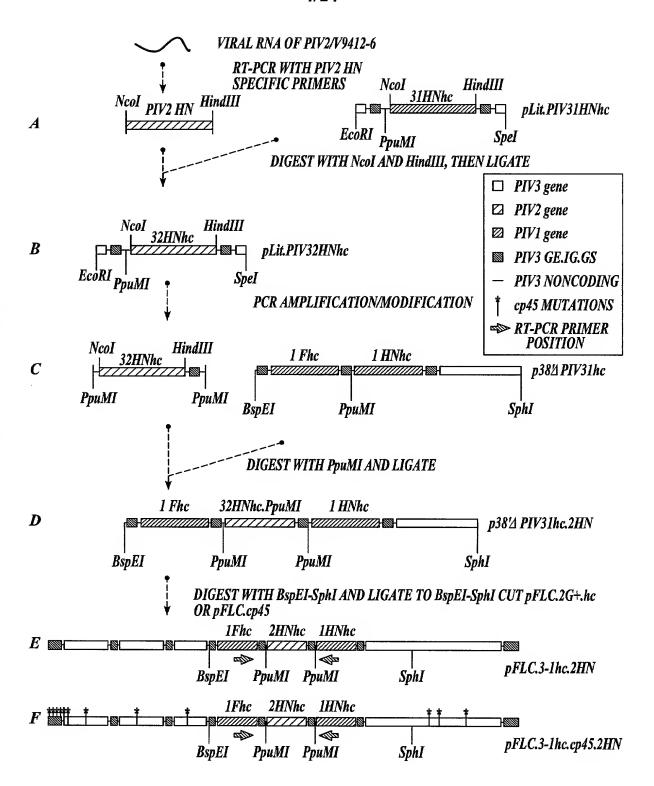
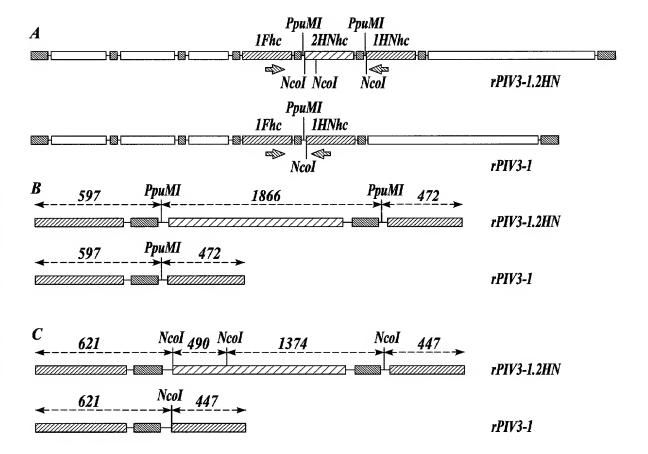


Fig. 3



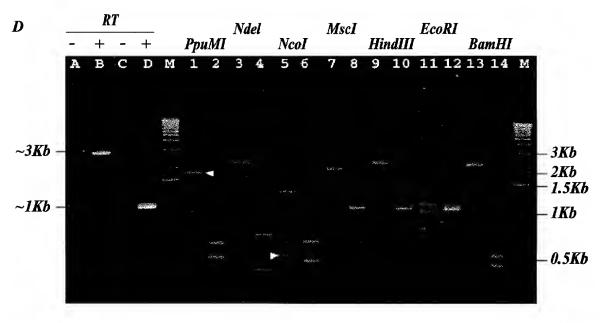


Fig. 4

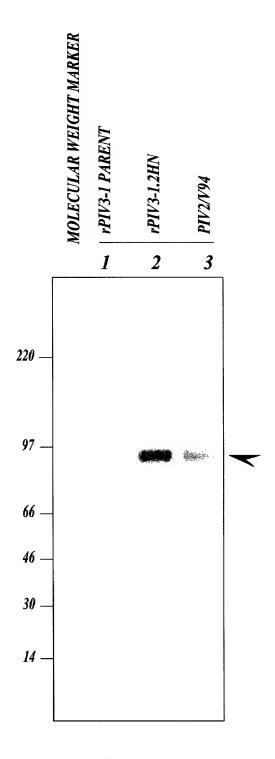


Fig. 5

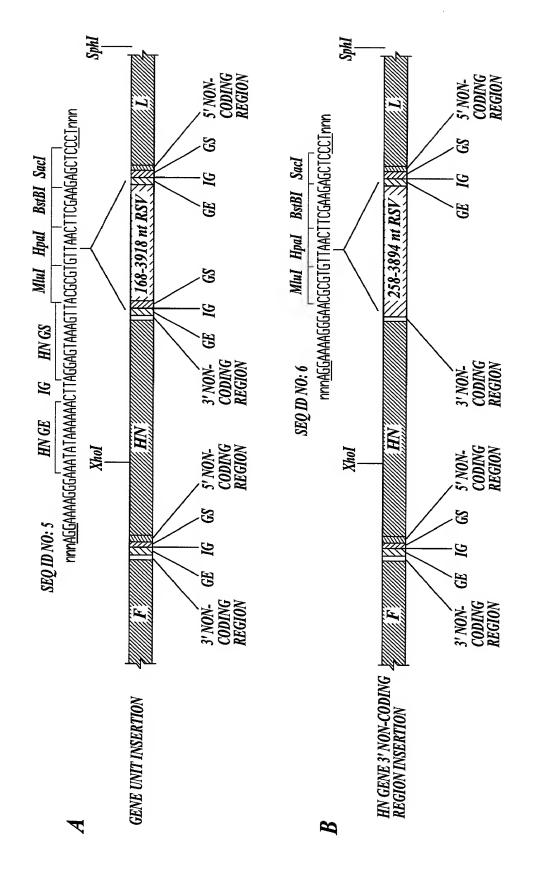


Fig. 6

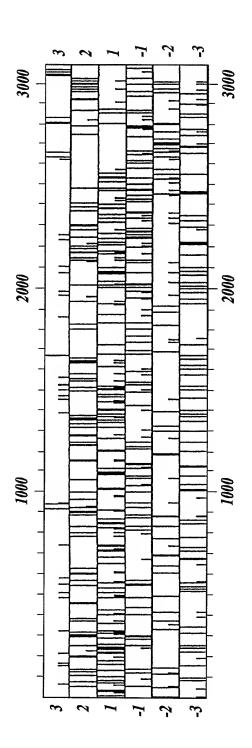


Fig. /

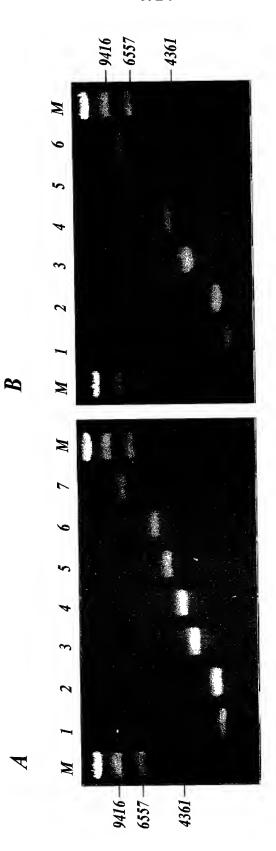
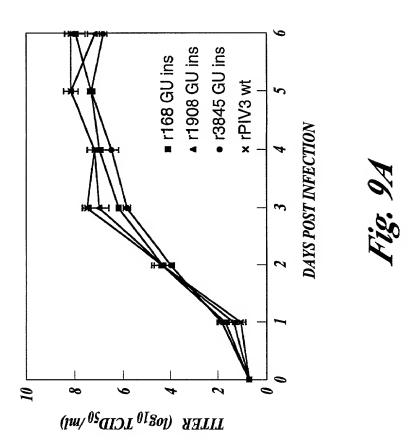
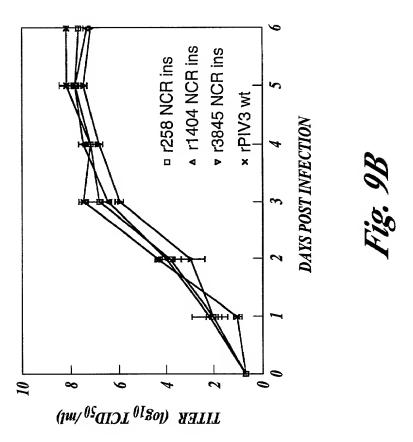
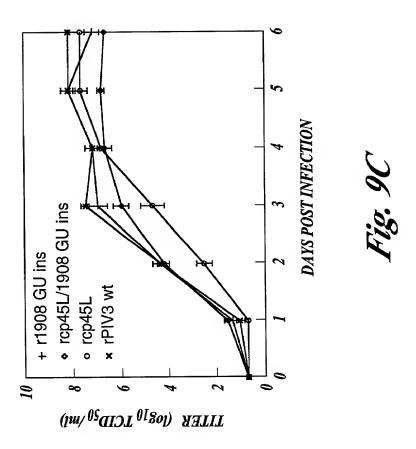


Fig. 8







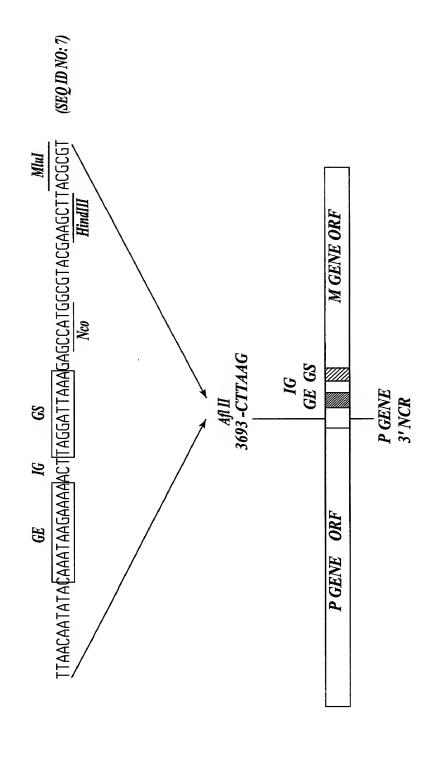


Fig. 10

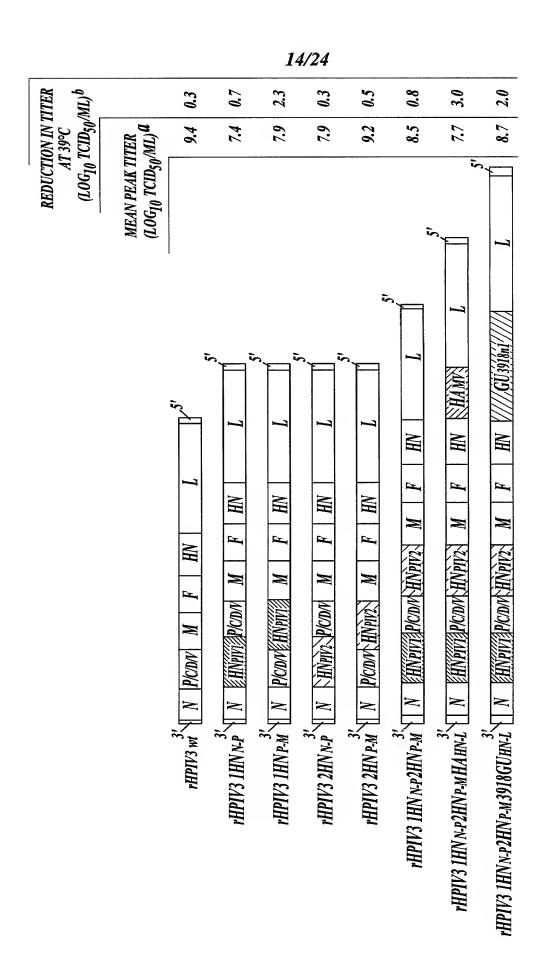


Fig. 11

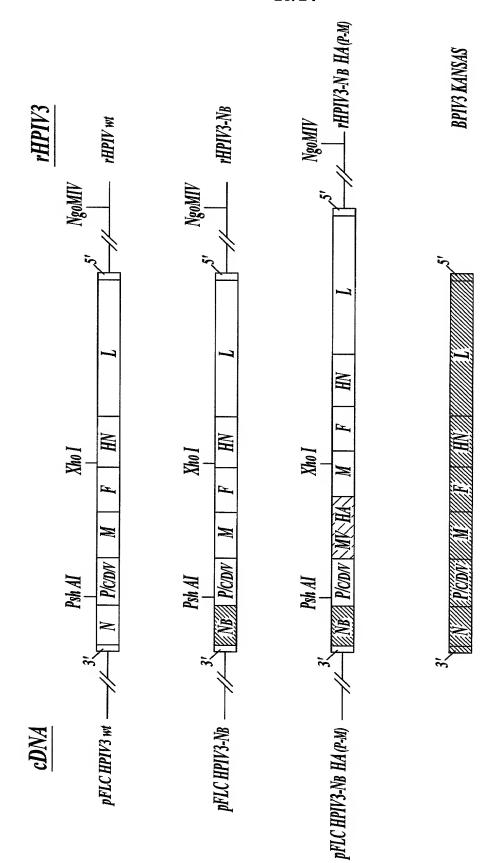
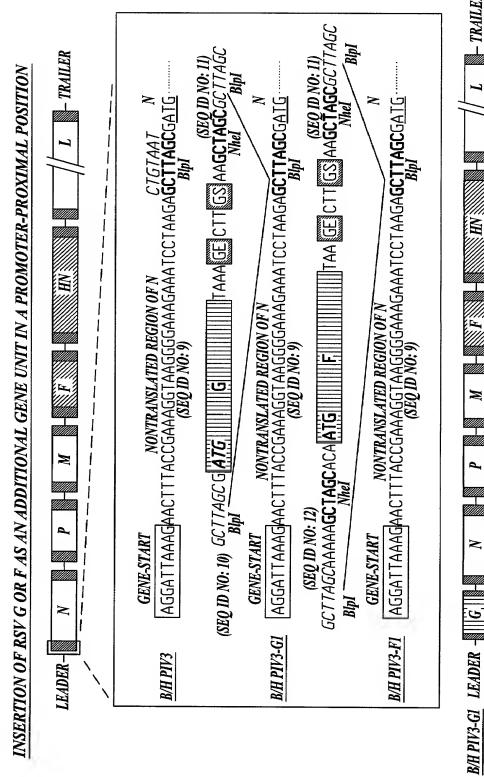
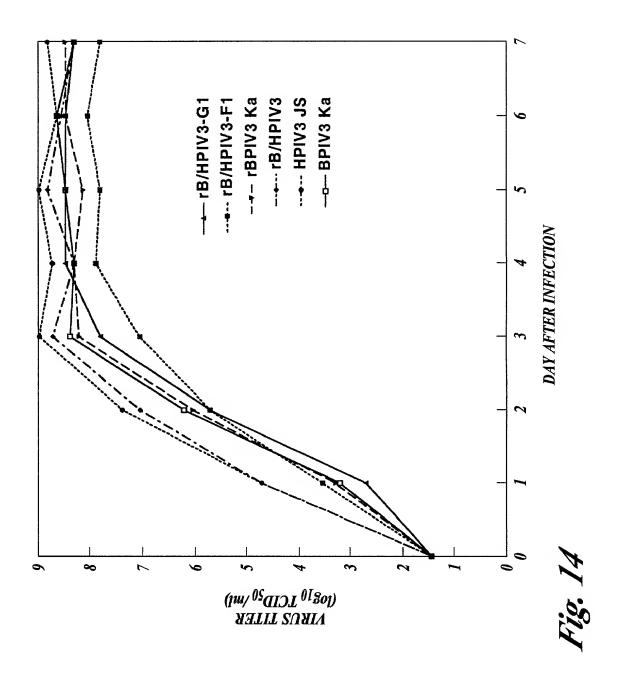


Fig. 12



M F F F M F H × B/H PIV3-F1 LEADER - | | | | | | | | |



RECOMBINANT BOVINE/HUMAN PIV3.1 EXPRESSING HPIV2 F AND HN FROM SUPERNUMERARY GENES

HILLS OF A LE A L	#5: rB/HPIV3.1-2F		HI: rbpiv3	SgrAI BsiWI	BsiWi	SgrAI BSiWI Asc I Not I SgrAI BsiWI Asc I Asc I Not I SgrAI	4: rB/HPIV3 4: rB/HPIV3.1 4: rB/HPIV3.1-2HN 5: rB/HPIV3.1-2F
Blp I Asc I Not I Not I SgrAI Signal Not I Not I SgrAI HNI	Asc I Not I Not I SgrAI		SgrAI BsiWI Blp I Asc I Not I SgrAI BsiWI Bln I Asc I Asc I Not I SarAI	SgrAI BriWI Bly I Asc I Not I SgrAI BriWI Bly I Asc I Asc I Not I SgrAI BriWI Bly I Asc I Asc I Not I SgrAI BriWI	N I N	N HN2// PICON M FI	4; rB/HPIV3.1-2HN
Blp I Asc I Asc I Not I SgrAI Blp I Asc I Not I Not I SgrAI Sign Not I F2	Blp I Asc I Asc I Not I SgrAI Blp I Asc I Not I SgrAI	Blp I Asc I Asc I Not I SgrAl Strain IN HN2 Propries M FI HN	SgrAI Sign N Picany M F3 HN Bip I Asc I Not I SgrAI	SgrAI SgrAI Shp I Asc I Not I SgrAI		N RCON HI	8: rB/HPIV3.1
2HV Blp I Asc I Asc I Not I SgrAI Blp I Asc I Not I Not I SgrAI Blp I Asc I Not I SgrAI Blp I Asc I Not I SgrAI Strain Hill Blp I Asc I Not I F2 Hill Blp I Asc I Not I F2 Hill Blp I Asc I Not I HZ	Blp I Asc I Not I SgrAI Blp I Asc I Not I SgrAI Blp I Asc I Not I SgrAI	Bip I Asc I Asc I Not I SgrAI SHIN HN2 PCONT MENT HN1	SgrAI Symmy Picon Mill Fig. HW	SgrAI SgrAI SgrAI SgrAI		Asc I Not I SgrAI	
Signature Sign	Asc I Not I Sgr AI BsiWI Asc I Asc I Not I Sgr AI Asc I Not I Sgr AI Asc I Not I Sgr AI	Blp I Asc I Not I SgrAI BsiWI Blp I Asc I Asc I Not I SgrAI Blp I Asc I Asc I Not I SgrAI SHWI		SgrAI	[2]	THE STATE OF THE S	?2: rB/HPIV3
State Not SgrAI	Bip I Asc I Not I SgrAI BsiWI Bip I Asc I Asc I Not I SgrAI Bip I Asc I Asc I Not I SgrAI Bip I Asc I Not I SgrAI Bip I Asc I Not I SgrAI	Bip I Asc I Not I SgrAI BsiWI Bip I Asc I Asc I Not I SgrAI Bip I Asc I Asc I Not I SgrAI Bip I Asc I Asc I Not I SgrAI Bip I Asc I Asc I Not I SgrAI		BAN PCDN N			

Fig. 15

Fig. 16

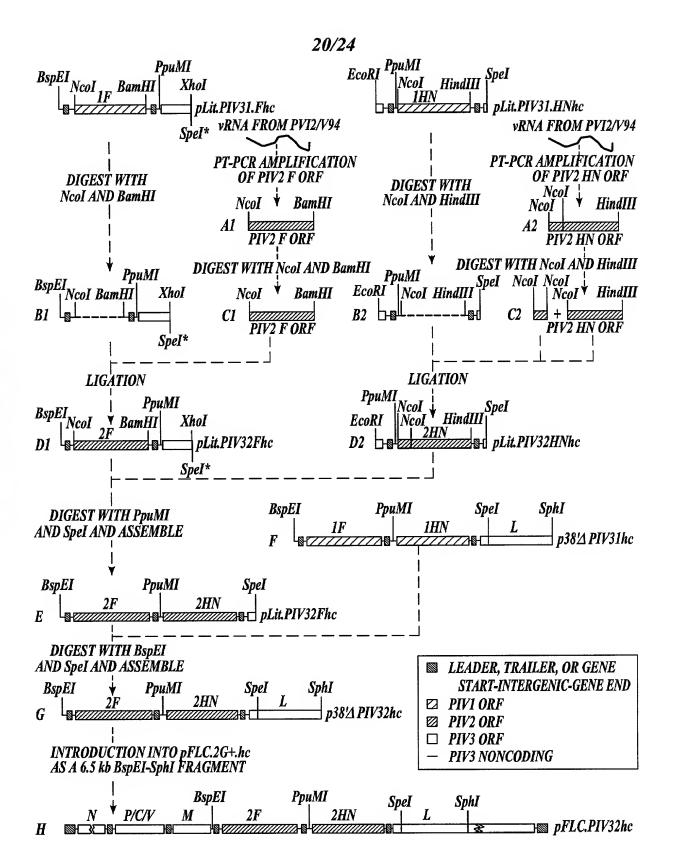


Fig. 17

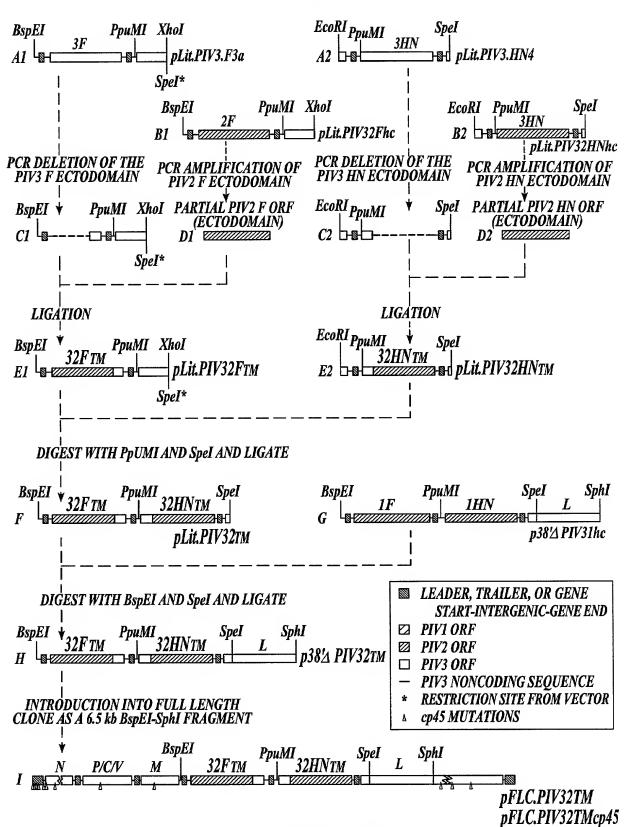


Fig. 18

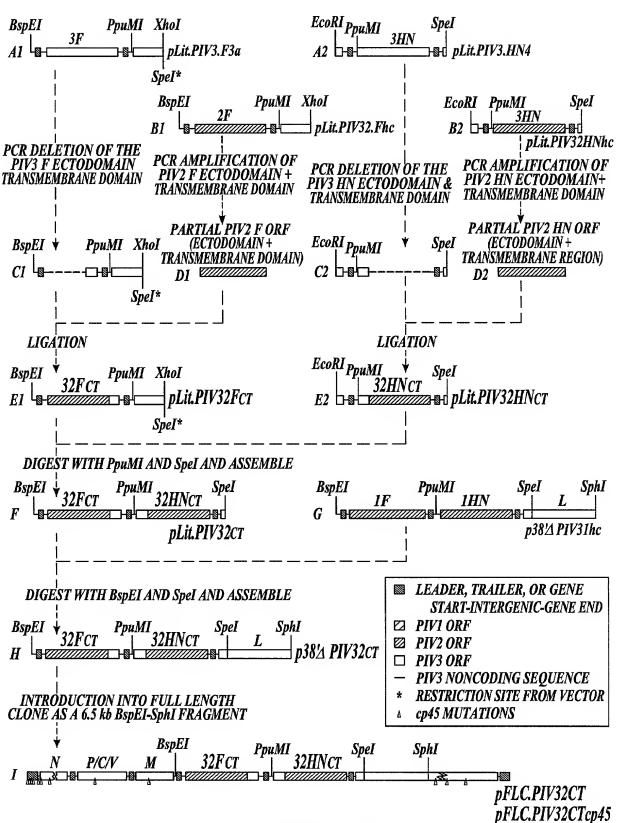


Fig. 19

23/24
A. GENETIC STRUCTURES OF PIV3-2 CHIMERIC VIRUSES COMPARED WITH PIV3 PARENT AND PIV3-1

A. GENETIC	SINUCIC	RES OF FIVS-2	CHIMENIC	y inudes	COMPARE	יו אוווויו ע	r i y y r Ai	MENT AND	11117 3-1
rPIV rPIV3cp	45 MA	N P/C/V		TM+e			ΔΔ	<u>L</u>	
rPIV3-2T rPIV3-2TMcp	M 45	N P/C/V		//F ///			ΔΔ	<u>L</u>	
rPIV3-2C rPIV3-2CTcp	45 A A	N P/C/V		W.F//			ΔΔ	<u>L</u>	
(THEORETIC	AL, NOT I	N P/C/V RECOVERED)		-///F///				L	
rPIV3 rPIV3-1cp (FROM PREV)	45 MAY 16	N P/C/V RK: CONTROL	VIRUS)	///F//			ΔΔ	<u>L</u>	
- E	■ PIV3 I Z PIV1 (Z PIV2 (LER/GE-I-GS		PIV3 ORF PIV3 NON- cp45 MUTA		SEQUEN	/CE	
		F AND HN CON D FROM PIV3 1	AND HN	TH TRA	NSMEMBRA	NE AND	CYTOPL	4SMIC	
PIV3-PIV2FTM PIV3 F 5'-nt	I		494 - 490 		TRANSMEMBI PLASMIC DON		40 P.	IV3 F 3'-nti	r
caa gca ctg	W /H	T CAC CTG CT	fat ka eta	atcata (att att ac i i t	a aac aaa n k	taa cat *	atc tac aga	111
PIV3-PIV2HN7 PIV3 HN 5'-1	CM , PIV3 I	CTODOMAIN O HN TRANSMEMBR OPLASMIC DOMA	ANE [56			487		PIV3 H	N 3'-ntr
ttc aaa ttc g	ag atg gao n e	tac att aat y I N	tcc atc fAT fo S I #	<u>/X/X/</u>	CAT , GAA	AN ANG CA	TAM <u>GCT</u>		a acc ata
C. CHIMERIO	C PIV3-2 F	AND HN CONS	TRUCTS WITH		OMAIN OF P LASMIC DOI			NUCLEOTII ROM PIV3 F	
PIV3-PIV2FCT	Γ,		517 - 513	СУТ	PIV3 F OPLASMIC OOMAIN	₋ 540	PIV3 F		
caa gca ctg		TEAR EHE "yes A	TAC ATE ATE		tac ata aa / t n	caaa taa k *		-	
DILIO DILIONA		DOMAIN & TRAN DOMAIN OF F							
PIV3-PIV2HN PIV3 HN 5'-	ntr CY	PIV3 HN TOPLASMIC DOM		IJA] J. I !	4. J.	487 	///	V3 HN 3'-n	
tcc aaa ttc	gag atg ga n e	a tac ctc act yl t	n k	<u> </u>	TAN SAN STA	OMAIN &	AA too to	aa tta acc (ata
				AAMAI INJIA	MAINTAIN TO THE	UNIAGRALI III			

TRANSMEMBRANE DOMAIN & ECTODOMAIN OF PIV2 HN

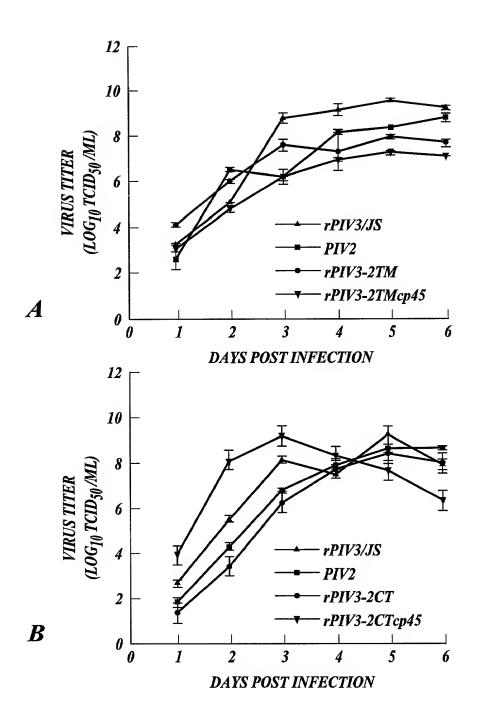


Fig. 21